

CLAIMS:

1. A drill guide assembly for determining the axis for drilling a bore to receive a component of an orthopaedic joint prosthesis, which comprises:
  - a drill guide that includes a sleeve and a bulb at one end of the sleeve,
  - a frame fastenable to a bone that includes a housing which defines a recess in which the drill guide bulb can be received with the drill guide sleeve extending out of the recess in a direction away from the bone, so that the angular orientation of the drill guide sleeve relative to the housing can be adjusted by movement of the bulb within the recess, and
  - a clamp for locking the drill guide relative to the housing against angular adjustment, the clamp comprising a lower pair of clamping surfaces provided by the drill guide bulb and the internal wall of the recess respectively, and an upper pair of clamping surfaces on the drill guide and the housing respectively, arranged so that the drill guide can be locked against angular adjustment by engagement between the frame clamping surfaces and the drill guide clamping surfaces of each of the lower and upper pairs, and wherein the upper clamping surface of the drill guide is spaced apart from the bulb along the drill guide sleeve.
2. The drill guide assembly of claim 1, wherein the frame upper clamping surface is provided on a collar portion that extends from the housing in a direction away from the bone, the collar portion being hollow so that the drill guide sleeve can extend therethrough.
3. The drill guide assembly of claim 1, wherein the frame upper clamping surface faces generally away from the patient's bone and the clamping surface of the recess faces generally towards the patient's bone.
4. The drill guide assembly of claim 1, wherein one of the upper clamping surfaces is provided by a washer, and the clamp includes an actuator that can act on the washer to urge the washer against the other of the upper clamping surfaces.
5. The drill guide assembly of claim 4, wherein the actuator comprises a threaded nut.

6. The drill guide assembly of claim 1, further comprising a resiliently deformable washer located between at least one of the upper clamping surfaces and the lower clamping surfaces.
7. The drill guide assembly of claim 1, wherein the ratio of (a) the distance between the upper and lower clamping surfaces when the drill guide is clamped against angular adjustment to (b) the transverse dimension of the bulb, measured perpendicular to the axis of the drill guide sleeve, is at least 1.3.
8. The drill guide assembly of claim 1, wherein the frame provides a platform that defines a plane that is spaced apart from the bone and an axis of the assembly that extends perpendicular to the said plane, and wherein the drill guide is mounted on the platform so that it can be translated relative to the frame generally in the plane of the platform.
9. The drill guide assembly of claim 8, which includes a lock for preventing translation of the drill guide relative to the frame, wherein the clamp and the lock can be engaged and disengaged independently of one another.
10. The drill guide assembly of claim 1, comprising an alignment stylus connected to the drill guide to move with the drill guide relative to the frame, the stylus including a first limb that is directed towards the bone, to facilitate assessment of the alignment of the drill guide sleeve relative to anatomical features of the bone.
11. The drill guide assembly of claim 10, wherein the stylus can be moved rotatably around the drill guide sleeve.
12. The drill guide assembly of claim 11, wherein the stylus can be moved around the drill guide sleeve while the clamp is engaged to prevent angular movement of the drill guide relative to the frame.

13. The drill guide assembly of claim 10, wherein the stylus includes a second limb extending from the first limb in a direction generally towards the axis of the assembly.
14. The drill guide assembly of claim 13, wherein the length of at least one of the first and second limbs of the stylus is adjustable.
15. The drill guide assembly of claim 1, wherein the frame has three legs by which it can be fitted on to a bone.